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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/677,979	10/03/2000	Alan L. Cox	4646.002	7664

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EXAMINER

TRUONG, BAO Q

ART UNIT	PAPER NUMBER
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2187

DATE MAILED: 09/04/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/677,979	COX ET AL.	
	Examiner	Art Unit	
	Bao Q Truong	2187	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 October 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 40-95 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 40-46, 48-63, 65-76, 78-89 and 91-95 is/are rejected.
- 7) ☒ Claim(s) 47, 64, 77 and 90 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 October 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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1. The instant application having Application No. 09/677,979 has a total of 56 claims pending in the application; there are 4 independent claims and 52 dependent claims, all of which are ready for examination by the examiner.

Oath/Declaration

2. The applicant's oath/declaration has been reviewed by the examiner and is found to conform to the requirements prescribed in 37 C.F.R. § 1.63.

Information Disclosure Statement

3. As required by M.P.E.P § 609 (C), the applicant's submission of the Information Disclosure Statement, dated on 02/09/2001, is acknowledged by the examiner; and the cited reference has been considered in the examination of the claims now pending. As required by M.P.E.P § 609 C (2), a copy of the PTO-1449 initialed and dated by the examiner is attached to the instant office action.

Claim Objections

4. Claim 69 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Following in this office action, the examiner will consider claim 69 as a dependent claim of claim 57, instead of claim 56.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 92 recites the limitations "the cylinder of the magnetic disk" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Following in this office action, the examiner will consider claim 92 as a dependent claim of claim 91, instead of claim 83.

7. Claims 93 recites the limitation "the magnetic disk" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Following in this office action, the examiner will consider claim 69 as a dependent claim of claim 91, instead of claim 83.

8. Claims 94 recites the limitation "the magnetic disk" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Following in this office action, the examiner will consider claim 69 as a dependent claim of claim 91, instead of claim 83.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 40-46, 48-63, 65-76, 78-89 and 91-95 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mantha et al. (U.S. Patent No. 6,163,779) in view of Ganger et al. (Embedded Inodes and Explicit Grouping: Exploiting Disk Bandwidth for Small Files - 1997).

Referring to claims 40 and 83, Mantha teaches a method and a computer program product in computer readable media for use in storing Web content, comprising:

receiving a Web page as displaying a base HTML document on a browser of a Web client
(see **abstract and summary of the invention**);

identifying Web objects having correlated retrieval times to the Web page as identifying an embedded object associated with each hypertext reference in the base HTML document (see **abstract and summary of the invention**);

receiving the Web objects as retrieving copies of the embedded objects from the server
(see **abstract and summary of the invention**).

However, Mantha does not clearly teach a step of storing the Web objects in co-located positions on a storage device.

Ganger teaches a method of storing objects having correlated retrieval times in co-located positions on a disk drive (see **abstract** on page 1; figure 1 and lines 32-52 of column 1 on page 3 of Ganger).

It would have been obvious to one having an ordinary level of skill in the art at the time the invention was made to include, in the method taught by Mantha, a step of storing the Web objects in co-located positions on a storage device. This would have been obvious since Ganger clearly teach that storing objects having correlated retrieval times in co-located positions on the disk drive reducing disk access time and improving performance (see **motivation** on page 4 and **performance evaluation** on page 11 of Ganger).

As to claims 41 and 84, Mantha further teaches that the Web objects comprise at least one hyper-linked Web object of the Web page as a hypertext reference in the base HTML document (see **abstract** and **summary of the invention**).

As to claims 42 and 85, Mantha further teaches that the Web objects comprise at least one embedded Web object of the Web page (see column 1: lines 29-40).

As to claims 43 and 86, Mantha further teaches that the step of identifying Web objects having correlated retrieval times to the Web page further comprises parsing the Web page (see column 2: lines 28-30).

As to claims 44 and 87, Mantha further teaches a step of submitting requests for the Web objects of the Web page as requesting and retrieving a copy of the embedded object from the server (see column 2: lines 33-35).

As to claims 45 and 88, Mantha further teaches:

identifying a reference to at least one of the Web objects of the Web page as identifying an embedded object associated with each hypertext reference in the base HTML document (see **abstract and summary of the invention**);

storing the Web page in a holding area as caching a Web page in a proxy cache (see figure 3: element 227, column 6: lines 40-67, column 7: lines 1-67, and column 8: lines 1-14);

receiving the at least one of the Web objects as retrieving a copy of the embedded object from the server (see **abstract and summary of the invention**);

storing the at least one of the Web objects in the holding area as caching a Web object in a proxy cache (see figure 3: element 227, column 6: lines 40-67, column 7: lines 1-67, and column 8: lines 1-14); and

storing the Web page and the at least one of the Web objects in co-located positions on the storage device as taught by Ganger (see claims 40 and 83).

As to claims 46 and 89, Mantha further teaches that at least one of the Web objects comprise an embedded Web page as a hypertext reference in the base HTML document (see **abstract and summary of the invention**).

As to claims 48-51 and 91-94, the rejection is the same as that applied to claims 40 and 83 above; wherein the storage device is a hard drive that has plurality of cylinders (see **table 2** on page 11 of Ganger). According to Ganger teaching, objects having correlated retrieval times in co-located positions on a disk drive. That means those objects are stored on one cylinder or on multiple cylinders, if more space is required, as long as they are stored contiguously.

As to claims 52-56 and 95, Mantha further teaches that at least one of the Web objects comprises an electronic file; a text file as Web page contained text only; an image file; an audio file; and/or a video file (see column 2: lines 11-13).

Referring to claim 57, Mantha teaches a method of storing Web content, comprising:
receiving a plurality of Web objects as parsing the base Web page and retrieving a list of hypertext references or copies of the embedded objects (see column 1: lines 29-40, **abstract** and **summary of the invention**);

identifying at least one of the plurality of Web objects as a Web page as a hypertext reference in the base HTML document (see **abstract** and **summary of the invention**);

identifying at least one of the plurality of Web objects as a correlated Web object having a correlated retrieval time to the Web page as identifying an embedded object associated with each hypertext reference in the base HTML document (see **abstract** and **summary of the invention**).

However, Mantha does not clearly teach a step of storing the Web page and the correlated Web objects in co-located positions on a storage device.

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Ganger teaches a method of storing objects having correlated retrieval times in co-located positions on a disk drive (see **abstract** on page 1; figure 1 and lines 32-52 of column 1 on page 3 of Ganger).

It would have been obvious to one having an ordinary level of skill in the art at the time the invention was made to include, in the method taught by Mantha, a step of storing the Web page and the correlated Web objects in co-located positions on a storage device. This would have been obvious since Ganger clearly teach that storing objects having correlated retrieval times in co-located positions on the disk drive reducing disk access time and improving performance (see **motivation** on page 4 and **performance evaluation** on page 11 of Ganger).

As to claim 58, Mantha further teaches that the Web objects comprise at least one hyper-linked Web object of the Web page as a hypertext reference in the base HTML document (see **abstract** and **summary of the invention**).

As to claim 59, Mantha further teaches that the Web objects comprise at least one embedded Web object of the Web page (see column 1: lines 29-40).

As to claim 60, Mantha further teaches that the step of identifying Web objects having correlated retrieval times to the Web page further comprises parsing the Web page (see column 2: lines 28-30).

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As to claim 61, Mantha further teaches a step of submitting requests for the Web objects of the Web page as requesting and retrieving a copy of the embedded object from the server (see column 2: lines 33-35).

As to claim 62, Mantha further teaches:

identifying a reference to at least one of the Web objects of the Web page as identifying an embedded object associated with each hypertext reference in the base HTML document (see **abstract and summary of the invention**);

storing the Web page in a holding area as caching a Web page in a proxy cache (see figure 3: element 227, column 6: lines 40-67, column 7: lines 1-67, and column 8: lines 1-14);

receiving the at least one of the Web objects as retrieving a copy of the embedded object from the server (see **abstract and summary of the invention**);

storing the at least one of the Web objects in the holding area as caching a Web object in a proxy cache (see figure 3: element 227, column 6: lines 40-67, column 7: lines 1-67, and column 8: lines 1-14); and

storing the Web page and the at least one of the Web objects in co-located positions on the storage device as taught by Ganger (see claims 40 and 83).

As to claim 63, Mantha further teaches that at least one of the Web objects comprise an embedded Web page as a hypertext reference in the base HTML document (see **abstract and summary of the invention**).

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As to claims 65-68, the rejection is the same as that applied to claims 40 and 83 above; wherein the storage device is a hard drive that has plurality of cylinders (see **table 2** on page 11 of Ganger). According to Ganger teaching, objects having correlated retrieval times in co-located positions on a disk drive. That means those objects are stored on one cylinder or on multiple cylinders, if more space is required, as long as they are stored contiguously.

As to claim 69, Mantha further teaches that at least on of the Web objects comprises an electronic file; a text file as Web page contained text only; an image file; an audio file; and/or a video file (see column 2: lines 11-13).

Referring to claim 70, Mantha discloses a storage system for Web objects comprising:
a microprocessor (see figure 3: element 204);

a storage device coupled to the microprocessor, the storage device adapted to store Web objects and storage routines (see figure 3: element 220); and

a storage routine stored on the storage device (see column 14: lines 48-67); the storage routine adapted to receive a Web page as displaying a base HTML document on a browser of a Web client; identify Web objects having correlated retrieval times to the Web page as identifying an embedded object associated with each hypertext reference in the base HTML document; receive the Web objects as retrieving copies of the embedded objects from the server (see **abstract and summary of the invention**).

However, Mantha does not clearly disclose that the storage routine adapted to store the Web page and the Web objects in co-located positions on a storage device.

Ganger teaches a method and system of storing objects having correlated retrieval times in co-located positions on a disk drive (see **abstract** on page 1; figure 1 and lines 32-52 of column 1 on page 3 of Ganger).

It would have been obvious to one having an ordinary level of skill in the art at the time the invention was made to modify the system taught by Mantha so that the storage routine adapted to store the Web page and the Web objects in co-located positions on a storage device. This would have been obvious since Ganger clearly teach that storing objects having correlated retrieval times in co-located positions on the disk drive reducing disk access time and improving performance (see **motivation** on page 4 and **performance evaluation** on page 11 of Ganger).

As to claim 71, Mantha further discloses that the Web objects comprise at least one hyper-linked Web object of the Web page as a hypertext reference in the base HTML document (see **abstract** and **summary of the invention**).

As to claim 72, Mantha further discloses that the Web objects comprise at least one embedded Web object of the Web page (see column 1: lines 29-40).

As to claim 73, Mantha further discloses that the storage routine is further adapted to parse the Web page to identify Web objects having correlated retrieval times to the Web page (see column 2: lines 28-30).

As to claim 74, Mantha further discloses that the storage routine is further adapted to a submit requests for the Web objects having correlated retrieval times to the Web page as requesting and retrieving a copy of the embedded object from the server (see column 2: lines 33-35).

As to claim 75, Mantha further discloses that the storage routine is further adapted to:
identify a reference to at least one of the Web objects of the Web page as identifying an embedded object associated with each hypertext reference in the base HTML document (see **abstract and summary of the invention**);

store the Web page in a holding area as caching a Web page in a proxy cache (see figure 3: element 227, column 6: lines 40-67, column 7: lines 1-67, and column 8: lines 1-14);

receive the at least one of the Web objects as retrieving a copy of the embedded object from the server (see **abstract and summary of the invention**);

store the at least one of the Web objects in the holding area as caching a Web object in a proxy cache (see figure 3: element 227, column 6: lines 40-67, column 7: lines 1-67, and column 8: lines 1-14); and

store the Web page and the at least one of the Web objects in co-located positions on the storage device as taught by Ganger (see claims 40 and 83).

As to claim 76, Mantha further discloses that at least one of the Web objects comprise an embedded Web page as a hypertext reference in the base HTML document (see **abstract and summary of the invention**).

As to claims 78-81, the rejection is the same as that applied to claims 40 and 83 above; wherein the storage device is a hard drive that has plurality of cylinders (see **table 2** on page 11 of Ganger). According to Ganger teaching, objects having correlated retrieval times in co-located positions on a disk drive. That means those objects are stored on one cylinder or on multiple cylinders, if more space is required, as long as they are stored contiguously.

As to claim 82, Mantha further teaches that at least on of the Web objects comprises an electronic file; a text file as Web page contained text only; an image file; an audio file; and/or a video file (see column 2: lines 11-13).

Allowable Subject Matter

11. Claims 47, 64, 77, and 90 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See Form PTO-892.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bao Q Truong whose telephone number is (703) 308-7090. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald A Sparks, can be reached on (703) 308-1756. The fax phone number for the organization where this application or proceeding is assigned is (703) 746-7239.

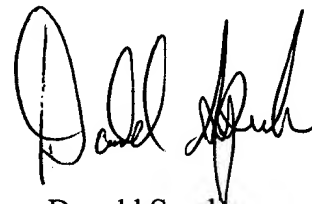
Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Bao Q Truong

BT

Patent Examiner

August 28, 2003



Donald Sparks

Supervisory Patent Examiner

Technology Center 2100